Date: Mon,  3 Oct 94 04:30:29 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: List
Subject: Ham-Homebrew Digest V94 #293
To: Ham-Homebrew

Ham-Homebrew Digest         Mon,  3 Oct 94       Volume 94 : Issue  293

Today's Topics:
                  Torroid on feedline absorbs power?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".


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Date: Mon, 3 Oct 1994 03:37:02 GMT
From: ghiscox@netcom.com (George L. Hiscox)
Subject: Torroid on feedline absorbs power?

Micron3 (micron3@aol.com) wrote:
: In article <acooneyCwrz2B.Ht8@netcom.com>, acooney@netcom.com (Alan
: Cooney) writes:

: >So is that external energy
: >being absorbed by the ferrite (ie., wasted power), or is the torroid
: >giving me a high impedance 'choke' -- effectively just closing the door
: >on that rf path?  Oh, and the frequency is ~50MHz.

: The energy is not being lost.   You are correct in the assumption that the

: choke is "Closing the door on that rf path."
:
:   It is my understanding that wrapping the coax around the torroid core
: is not very effective as so little of the cable is in contact with the
: core.
: You might want to try installing a "Current Balun" which consists of many
: torroids just big enough to pass over the cable.   I beleive that Amidon

: amoung
: others will sell you the parts or finished units.  Since you are
: operating at
: 50 MHz a typical HF balun won't work.  You will need to specify that you
: need a balun that will work at 50 MHz.  Hope this helps.

: Terry  KJ7F
:

You might want to try using a ferrite donut out of an old color TV yoke.
Simply cut the copper wire off the donut.  In your case you can wrap the
coax through the donut as many times as it will fit while still remaining
in contact with the ferrite.

I have also used these TV yoke ferrite donuts to eliminate TVI.  You can
wrap both the line cord and the antenna coax through them and the TVI
disappears like magic!

Good luck, Mr. Phelps!

| George L. Hiscox | THE PRICE OF LIBERTY |
| ghiscox@netcom.com | IS ETERNAL VIGILANCE |
| WA6RIK @ WB6YMH.#soca.ca.usa.na | ^^^^^^^^^^^^^^^^ |

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Date: Mon, 3 Oct 1994 01:46:14 GMT
From: acooney@netcom.com (Alan Cooney)

References<36ammi$8t8@newsbf01.news.aol.com>
<1994Sep29.092538.18283@cabell.vcu.edu>, <36equ4$1s6o@info2.rus.uni-stuttgart.de>
Subject: Re: Torroid on feedline absorbs power?

moritz@ipers1.e-technik.uni-stuttgart.de wrote:
: In article <1994Sep29.092538.18283@cabell.vcu.edu>,
: J. Sherwood Williams <jwill@cabell.vcu.edu> wrote:
: >
: >             For RG-58 type coax: Use 50 of the FB-43-2401 Torroids
:                                      ^^
: Is the price not around 1$ each? this would make an expensive antenna.

: Moritz DL5UH

I expect it would.  I'm the one who made the original post, and would like
to thank all who responded and shared their expertise with me.  My solution
came in the form of a 2 1/4" diameter ferrite torroid.  Placed just below
the feed point, I wound 14 turns of my RG58 feedline through it.  VSWR
was all over the scale with variations in moisture before, and now wavers

almost imperceptibly under the same conditions.  The torroid cost me US$2 at my local surplus store.  The torroid does the trick, and is merely a 'current balun', or 'choke balun', as set forth in the ARRL literature and others.  It works well, I can attest!

I was originally concerned about the possibility that the torroid was absorbing power, but am now convinced that isn't the case.  The torroid raises the impedance of that particular path (the outside of the coax) at least at the frequency of interest, and so absorbs little to no power.

Thanks again to all who have helped me out.  :)

Take care,
Alan
WD6DES

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End of Ham-Homebrew Digest V94 #293
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